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CALIFORNIA SPORTFISHING PROTECTION ALLIANCE

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

CALIFORNIA SPORTFISHING PROTECTION ALLIANCE, Plaintiff, v. DENBESTE YARD & GARDEN, INC., Defendant.	Case No.: 4:22-cv-01975-DMR **DECLARATION OF IAN WREN IN SUPPORT OF SUPPLEMENTAL BRIEFING RE PLAINTIFF'S MOTION FOR ENTRY OF A DEFAULT JUDGMENT** Honorable Magistrate Judge Donna M. Ryu

I, IAN WREN, hereby declare under penalty of law that the following facts are true and correct:

1. I have been retained by Plaintiff California Sportfishing Protection Alliance to review documents and provide an opinion regarding the potential to discharge storm water from the DenBeste Yard & Garden, Inc., facility in Cloverdale, California ("Facility").

2. I have a Masters of Science in Hydrology from the School of Civil and Environmental Engineering, Imperial College of Science Technology and Medicine, and a Bachelor's of Arts in Integrative Biology from the University of California, Berkeley. I have worked as an Environmental Hydrologist for approximately 16 years.

3. I am a Certified Professional in Stormwater Quality (CPSWQ #0790), a California Construction General Permit Qualified Stormwater Pollution Prevention Plan

("SWPPP") Developer and Qualified SWPPP Practitioner (QSD/QSP #23331), and a California Industrial General Permit Qualified Industrial Storm Water Practitioner (QISP #00814).

4. I am a part-time staff member of San Francisco Baykeeper, where I have served as the Staff Scientist since 2010. In this capacity, I serve on several scientific-technical committees, including the Technical Review Committee of the San Francisco Bay Regional Monitoring Program ("RMP"). I have trained many staff members and volunteers on the collection, handling, and appropriate Quality Assurance/Quality Control ("QA/QC") procedures for stormwater sampling, and since 2010 have been continually engaged in the science, policy, and regulatory framework governing municipal and industrial stormwater management at the regional and statewide level. I have performed technical and litigation support on over seventy matters related to stormwater, involving sampling and sample design, review of SWPPPs, and identification of appropriate best management practices ("BMPs") across a variety of industries.

5. In addition to my role at Baykeeper, I have acted as an independent consultant for several non-profit and public sector clients for the last seven years, including wastewater sector clients in the San Francisco Bay Area. I provide technical and litigation support on stormwater matters, including sample collection; project management for the design and permitting of wastewater treatment wetlands; and program coordination and studies for water quality science and policy matters.

6. Before 2010 I worked for six years at environmental consulting firms in Southern California and the United Kingdom. My areas of focus included habitat restoration, permitting, and hydrology. As a hydrologist in the United Kingdom, I implemented and managed several water quality sampling and assessment projects, in addition to flood risk assessments, wetland delineations, and habitat restoration design efforts.

7. My curriculum vitae, setting forth additional qualifications. is attached hereto as **Exhibit A**.

8. My review of the Motion for Default Judgment establishes that Plaintiff performed the following analysis to conservatively estimate the level of precipitation required to cause a discharge form the Facility:

9. Identify the amount of precipitation that fell on the days in which the Defendants collected storm water samples (December 18, 2007, April 1, 2013, and March 5, 2014).

To quantify the amount of rainfall that fell at the Facility on these known sampling dates, Plaintiff obtained the recorded rainfall data from three nearby rain gauges.[1] On December 18, 2007, 1.75 inches of rain fell over a 24-hour period at the one station where data was available (USC00041838). Across all three stations, between 0.05 and 0.61 inches of rain fell on April 1, 2013. On March 5, 2014, between 0.01 and 0.09 inches of rain fell, based on review of three nearby rain gauges.

10. Compare the rainfall totals of days in which stormwater sampling occurred to identify a precipitation depth sufficient to generate storm water discharges from the Facility.

Plaintiff accurately recognized that the amount of precipitation recorded on March 5, 2014, which likely ranged between 0.01 and 0.09 inches, was potentially insufficient to generate runoff from the Facility. Rather than benchmarking the discharge days to 0.09 inches, which corresponds to the 24-hour rainfall total on March 5, 2014, at station USC00041838, Plaintiff calculated the 72-hour rainfall total, in recognition that the sampling date did not coincide with dry weather in the days leading up to that day. On April 1, 2013, the 72-hour rainfall total was between 0.59 and 0.74 inches. The highest, and thus most conservative, value of 0.74 inches, from station US1CASN0029, was relied on to estimate the number of days in which stormwater likely discharged from the Facility. This weather station is located 1.75 miles east of the Facility.

11. Calculate the 72-hour precipitation depth at three nearby rain gauges to estimate days of discharge. Plaintiff calculated the three-day sum of the precipitation data from March 28, 2017, to August 8, 2022, to derive the 72-hour rainfall depth, which more fully characterizes the antecedent hydrological conditions on the sampling dates. During this period, stations

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1 National Oceanic and Atmospheric Administration. Record of Climatological Observations: Network ID #s: USC00041838, US1CASN0078, US1CAN0029. www.ncdc.noaa.gov.

USC00041838, US1CASN0078, and US1CASN0029 recorded 182, 198, and 188 days, respectively, where the 72-hour rainfall total was greater than or equal to 0.74 inches. The Plaintiff used the lowest, and thus most conservative, number of days to identify at least 182 days during which discharges occurred from the Facility over the relevant period.

12. Plaintiff undertook a conservative analysis of rainfall data to derive a reasonable estimate of the number of days in which discharge occurred. Plaintiff appropriately managed the uncertainties of predicting discharge events, issues well-known to regulators tasked with setting up the sampling requirements for state and federal stormwater permits. In my opinion, the Plaintiff reasonably interpreted the data to generate a conservative benchmark value against which to identify the number of days when stormwater discharges from the Facility likely occurred. This opinion is supported by scientific literature and technical guidance, as well as California's General Permit for Storm Water Discharges Associated with Industrial Activities ("Industrial Stormwater Permit").

13. The Industrial Stormwater Permit is designed to avoid instances in which sample collection occurs after prolonged storm events, to accurately characterize stormwater quality during the first stages of a storm, when a larger proportion of pollution could discharge from an industrial facility (sometimes referred to as the "first flush"). The Industrial Stormwater Permit characterizes acceptable stormwater sampling conditions as "Qualifying Storm Events", or QSEs. The definition of a QSE is a precipitation event that produces a discharge from at least one drainage area at a given facility, and is preceded by 48 hours with no discharge from any drainage area at that facility. The definition of a QSE by the State Water Resources Control Board is consistent with the U.S. Environmental Protection Agency's definition of Measurable Storm Events from the Multi-Sector General Permit ("MSGP") for Stormwater Discharges Associated with Industrial Activity, which applies nationally to non-delegated states. [2] The 2021 MSGP requires that storm water sampling events must be preceded by 72-hours of dry weather.

[2] United States Environmental Protection Agency. 2021. National Pollutant Discharge Elimination System Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity. Available at https://www.epa.gov/npdes/stormwater-discharges-industrial-activities-epas-2021-msgp

14. The Defendant has collected a limited number of samples as a Permittee of the Industrial Stormwater Permit and none were consistent with allowable sampling conditions under state or federal permits. Plaintiff managed this situation in a reasonable manner to derive a conservative rainfall depth. Technical literature and guidance indicate that rainfall less than 0.1 inch is insufficient to generate runoff from impervious surfaces, such as roofs and roadways.[3,4] Based on my review of aerial imagery, most of the Facility is paved. However, soil, mulch, and other soil amendments occupy approximately 50% of the Facility. This material does retain some portion of the precipitation falling on, and flowing through, the Facility, but only to a point.

15. Multiple methods exist for estimating storm water runoff from a variety of land use types, taking into account factors such as the degree of perviousness, slope, and flow distance.[5] For instance, the United States Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) recommends a method for estimating direct runoff from storm rainfall, which assigns a 'Curve Number' based on land characteristics, to estimate runoff rates. Dirt roads are assigned a Curve Number between 72 and 89, depending on soil type, with the lower value assigned to relatively permeable soils and the higher values for less permeable soil, such as clay.[6] In the absence of site observations of the site, comparing the runoff characteristics of the Facility to those expected from a moderately permeable dirt road, with a Curve Number of 82, represents a conservative approach. The NRCS method indicates

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[3] USDA-NRCS (United States Department of Agriculture- Natural Resources Conservation Service). 2004. Estimated direct runoff from storm rainfall. National Engineering Handbook, Chapter 10, Part 630 Hydrology, Washington, DC.

[4] Burton, G. Allen, and Robert Pitt. 2002. Stormwater effects handbook: a toolbox for watershed managers, scientists, and engineers. Boca Raton, Fla: Lewis Publishers.

[5] Water Environment Federation and American Society of Civil Engineers/ Environmental & Water Resources Institute. Design of Urban Stormwater Controls, MOP 23. US: McGraw-Hill Professional, 2012.

[6] USDA-NRCS (United States Department of Agriculture- Natural Resources Conservation Service). 2004. Hydrologic Soil-Cover Complexes. National Engineering Handbook, Chapter 9, Part 630 Hydrology, Washington, DC.

that runoff occurs after 0.06 inches of rain.[7]

16. As referenced above, technical literature indicates rainfall events in excess of 0.1 inches are generally sufficient to generate runoff from mostly impervious surfaces. This value is consistent with the NRCS method, which indicates land with similar characteristics as the Facility will generate runoff in storms greater than 0.06 inches. To account for unknown site-specific variables, I believe that any 24-hour storm event greater than 0.2 inches will be sufficient to generate a storm water discharge from the Facility. This is consistent with my experience at numerous industrial facilities with a similarly moderate proportion of total impervious area.

17. Alternative methods for estimating the number of discharge days yield a comparable result to the method undertaken by the Plaintiff. I believe the approach undertaken by the Plaintiff to estimate the number of days of discharge from the Facility is valid. In an effort to maintain a higher degree of consistency with the Industrial Stormwater Permit, which refers to sampling requirements in terms of short duration storms, I re-calculated the number of days in which the 24-hour precipitation depth exceeded 0.2 inches at the Cloverdale 3.2 ESE, CA US station.[8] I undertook this for a period of record spanning from March 28, 2017 to March 5, 2023, which coincides with the most recent data point for that station. The number of discharge days, based on a 24-hour storm event of 0.2 inches, totaled 218 days during this timeframe. I also calculated the number of days during which the 24-hour precipitation depth exceeded 0.2 inches from March 28, 2017, to August 8, 2022 – the timeframe used by Plaintiff to estimate the days of discharge in their October 13, 2022, motion for default judgment. The number of discharge days, based on a 24-hour storm event of 0.2 inches, totaled 174 days, based on this timeframe, which compares favorably to the 182 days calculated by Plaintiff.

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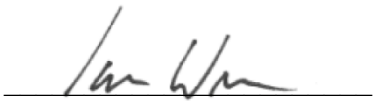
[7] USDA-NRCS (United States Department of Agriculture- Natural Resources Conservation Service). 2004. Estimated direct runoff from storm rainfall. National Engineering Handbook, Chapter 10, Part 630 Hydrology, Washington, DC.

[8] National Oceanic and Atmospheric Administration. Record of Climatological Observations: Network ID#: GHCND:US1CASN0029 (Cloverdale 3.2 ESE, CA US). Accessed on March 8, 2023. https://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:US1CASN0029/detail

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 23, 2023.



Ian Wren